Applicant: Choi et al.
Serial No.: 10/053,535
Filed: January 15, 2002

Page : 2 of 19

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## **Listing of Claims**:

## 1-42 (Canceled)

43. (Previously presented) A method of treating emphysema secondary to or resulting in oxidative stress to a patient, comprising:

identifying a patient suffering from emphysema secondary to or resulting in oxidative stress; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide.

44. (Previously presented) A method of treating bronchitis secondary to or resulting in oxidative stress to a patient, comprising:

identifying a patient suffering from bronchitis secondary to or resulting in oxidative stress; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide.

45. (Previously presented) A method of treating cystic fibrosis secondary to or resulting in oxidative stress to a patient, comprising:

identifying a patient suffering from cystic fibrosis secondary to or resulting in oxidative stress; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide.

Applicant: Choi et al. Serial No.: 10/053,535

Filed: January 15, 2002

Page : 3 of 19

46. (Previously presented) A method of treating pneumonia secondary to or resulting in oxidative stress to a patient, comprising:

identifying a patient suffering from pneumonia secondary to or resulting in oxidative stress; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide.

47. (Previously presented) A method of treating interstitial lung disease secondary to or resulting in oxidative stress to a patient, comprising:

identifying a patient suffering from interstitial lung disease secondary to or resulting in oxidative stress; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide.

48-49 (Canceled)

50. (Previously presented) A method of treating adult respiratory distress syndrome secondary to or resulting in oxidative stress to a patient, comprising:

identifying a patient suffering from adult respiratory distress syndrome secondary to or resulting in oxidative stress; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide.

51-52 (Canceled)

Applicant: Choi et al. Attorney's Docket No.: 13681-003002

Serial No.: 10/053,535
Filed: January 15, 2002

Page : 4 of 19

53. (Previously presented) The method of claim 43, wherein the composition is administered as an inhaled gas.

- 54. (Previously presented) The method of claim 53, wherein the gas is administered as a mixture comprising carbon monoxide, nitrogen and oxygen.
- 55. (Previously presented) The method of claim 54, wherein the concentration of carbon monoxide in the mixture is monitored with a carbon monoxide analyzer.
  - 56. (Previously presented) The method of claim 43, wherein the patient is a human.
- 57. (Previously presented) A method of treating asthma in a human patient, comprising: identifying a human patient suffering from asthma; and administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide.
- 58. (Previously presented) A method of treating asthma in a patient, comprising: identifying a patient suffering from asthma; and administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, wherein the composition contains 0.005% to 0.05% carbon monoxide.
  - 59. (Previously presented) The method of claim 58, wherein the patient is a human.
  - 60-61 (Canceled)
  - 62. (Previously presented) A method of treating inflammation in a patient, comprising:

Applicant: Choi et al.
Serial No.: 10/053,535
Filed: January 15, 2002

Page : 5 of 19

identifying a patient suffering from inflammation of at least one organ selected from a group consisting of: kidney, heart, liver, and lung; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, wherein the inflammation is of a type selected from a group consisting of: acute, allergic, alterative, atrophic, catarrhal, croupous, fibrinopurulent, fibrinous, immune, hyperplastic, proliferative, subacute, serous and serofibrinous inflammation.

63. (Previously presented) A method of treating inflammation in a human patient, comprising:

identifying a human patient suffering from inflammation of at least one organ selected from a group consisting of: kidney, heart, liver, and lung; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, to thereby treat inflammation in the patient.

64. (Currently Amended) A method of treating inflammation in a patient, comprising: identifying a patient suffering from or at risk of inflammation of at least one organ selected from the group consisting of: kidney, spleen and skin; and

administering to the patient a therapeutically effective amount of a composition comprising gaseous carbon monoxide, to thereby treat inflammation in the patient.

65. (Previously presented) A method of reducing inflammation secondary to sepsis in a patient, comprising:

identifying a patient suffering from or at risk of sepsis; and administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, to thereby reduce inflammation secondary to sepsis.

66. (Previously presented) A method for reducing inflammation associated with a wound, the method comprising:

Applicant: Choi et al.
Serial No.: 10/053,535
Filed: January 15, 2002

Page : 6 of 19

identifying a patient suffering from a wound; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, wherein the amount is sufficient to reduce inflammation associated with the wound.

- 67. (Previously presented) A method of treating sepsis in a patient, comprising: identifying a patient suffering from or at risk of sepsis; and administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, to thereby treat sepsis in the patient.
- 68. (Previously presented) A method of treating inflammation associated with arthritis in a patient, comprising:

identifying a patient suffering from or at risk for arthritis; and administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, to thereby treat inflammation associated with arthritis in the patient.

69. (Previously presented) A method of treating a patient to reduce oxidative stress associated with hyperoxia, comprising:

identifying a human patient suffering from or at risk for oxidative stress associated with hyperoxia; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, to thereby reduce oxidative stress associated with hyperoxia.

70. (Previously presented) The method of claim 69, wherein the composition comprises carbon monoxide at a concentration of at least 50 ppm.

isir Euger

Choi et al. Attorney's Docket No.: 13681-003002

Applicant: Choi et al.
Serial No.: 10/053,535
Filed: January 15, 2002

Page : 7 of 19

71. (Previously presented) The method of claim 69, wherein the composition comprises carbon monoxide at a concentration of at least 100 ppm.

- 72. (Previously presented) The method of claim 69, wherein the composition comprises carbon monoxide at a concentration of at least 250 ppm.
- 73. (Previously presented) The method of claim 69, wherein the composition contains carbon monoxide at a concentration of about 50 ppm to about 500 ppm.
- 74. (Previously presented) A method of treating a patient to reduce hyperoxic lung injury, comprising:

identifying a human patient suffering from or at risk for hyperoxic lung injury; and administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, to thereby reduce hyperoxic lung injury.

- 75. (Previously presented) The method of claim 74, wherein the composition comprises carbon monoxide at a concentration of at least 50 ppm.
- 76. (Previously presented) The method of claim 74, wherein the composition comprises carbon monoxide at a concentration of at least 100 ppm.
- 77. (Previously presented) The method of claim 74, wherein the composition comprises carbon monoxide at a concentration of at least 250 ppm.
- 78. (Previously presented) The method of claim 74, wherein the composition contains carbon monoxide at a concentration of about 50 ppm to about 500 ppm.

Applicant: Choi et al. Attorney's Docket No.: 13681-003002

Serial No. : 10/053,535

Filed : January 15, 2002

Page : 8 of 19

79. (Withdrawn) A gaseous mixture comprising (a) at least 98% oxygen gas and (b) an amount of carbon monoxide gas effective to reduce in a patient hyperoxic lung injury caused by inhaling a gaseous composition at least 98% of which is oxygen.

- 80. (Withdrawn) The mixture of claim 79, wherein the mixture comprises carbon monoxide gas at a concentration of at least 50 ppm.
- 81. (Withdrawn) The mixture of claim 79, wherein the mixture comprises carbon monoxide gas at a concentration of at least 100 ppm.
- 82. (Withdrawn) The mixture of claim 79, wherein the mixture comprises carbon monoxide gas at a concentration of at least 250 ppm.
- 83. (Withdrawn) The mixture of claim 79, wherein the mixture contains carbon monoxide gas at a concentration of about 50 ppm to about 500 ppm.
- 84. (Withdrawn) A method of treating a patient in need of a high concentration of oxygen, comprising:

identifying a patient in need of a high concentration of oxygen; and administering to the patient the gaseous mixture of claim 79.

- 85. (Withdrawn) The method of claim 84, wherein the mixture comprises carbon monoxide gas at a concentration of at least 50 ppm.
- 86. (Withdrawn) The method of claim 84, wherein the mixture comprises carbon monoxide gas at a concentration of at least 100 ppm.

Applicant: Choi et al.
Serial No.: 10/053,535
Filed: January 15, 2002

Page : 9 of 19

87. (Withdrawn) The method of claim 84, wherein the mixture comprises carbon monoxide gas at a concentration of at least 250 ppm.

- 88. (Withdrawn) The method of claim 84, wherein the mixture contains carbon monoxide gas at a concentration of about 50 ppm to about 500 ppm.
- 89. (Previously presented) A method of treating inflammation associated with Alzheimer's disease or Parkinson's disease, comprising:

identifying a patient suffering from or at risk for Alzheimer's disease or Parkinson's disease; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, to thereby treat inflammation associated with Alzheimer's disease or Parkinson's disease.

90-95 (Canceled)

96. (Previously presented) A method of treating inflammation in a patient, comprising: identifying a patient suffering from inflammation of at least one organ selected from the group consisting of brain, spleen, and skin; and

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, wherein the inflammation is of a type selected from the group consisting of acute, allergic, alterative, atrophic, catarrhal, croupous, fibrinopurulent, fibrinous, immune, hyperplastic, proliferative, subacute, serous and serofibrinous inflammation.

97. (Previously presented) A method of treating inflammation in a human patient, comprising:

identifying a patient suffering from inflammation of at least one organ selected from the group consisting of brain, spleen, and skin; and

1 :

Applicant: Choi et al.
Serial No.: 10/053,535
Filed: January 15, 2002

Page : 10 of 19

administering to the patient a therapeutically effective amount of a composition comprising carbon monoxide, to thereby treat inflammation in the human patient.

- 98. (Previously presented) The method of claim 57, wherein the composition is administered as an inhaled gas.
- 99. (Previously presented) The method of claim 58, wherein the composition is administered as an inhaled gas.

100-101 (Canceled)

- 102. (Previously presented) The method of claim 63, wherein the composition is administered as an inhaled gas.
- 103. (Previously presented) The method of claim 64, wherein the composition is administered as an inhaled gas.
- 104. (Previously presented) The method of claim 65, wherein the composition is administered as an inhaled gas.
  - 105. (Previously presented) The method of claim 65, wherein the patient is a human.
- 106. (Previously presented) The method of claim 66, wherein the composition is administered as an inhaled gas.
  - 107. (Previously presented) The method of claim 66, wherein the patient is a human.

Applicant: Choi et al. Attorney's Docket No.: 13681-003002

Serial No. : 10/053,535

Filed : January 15, 2002

Page : 11 of 19

108. (Previously presented) The method of claim 67, wherein the composition is administered as an inhaled gas.

- 109. (Previously presented) The method of claim 67, wherein the patient is a human.
- 110. (Previously presented) The method of claim 68, wherein the composition is administered as an inhaled gas.
  - 111. (Previously presented) The method of claim 68, wherein the patient is a human.
- 112. (Previously presented) The method of claim 69, wherein the composition is administered as an inhaled gas.
- 113. (Previously presented) The method of claim 74, wherein the composition is administered as an inhaled gas.
- 114. (Previously presented) The method of claim 89, wherein the composition is administered as an inhaled gas.
  - 115. (Previously presented) The method of claim 89, wherein the patient is a human.
  - 116-117 (Canceled)
- 118. (Previously presented) The method of claim 96, wherein the composition is administered as an inhaled gas.
  - 119. (Previously presented) The method of claim 96, wherein the patient is a human.

Attorney's Docket No.: 13681-003002 Applicant: Choi et al.

Serial No.: 10/053,535 Filed

: January 15, 2002

Page : 12 of 19

120. (Previously presented) The method of claim 97, wherein the composition is administered as an inhaled gas.

- 121. (Previously presented) The method of claim 44, wherein the composition is administered as an inhaled gas.
- 122. (Previously presented) The method of claim 121, wherein the gas is administered as a mixture comprising carbon monoxide, nitrogen and oxygen.
- 123. (Previously presented) The method of claim 122, wherein the concentration of carbon monoxide in the mixture is monitored with a carbon monoxide analyzer.
  - 124. (Previously presented) The method of claim 44, wherein the patient is a human.
- 125. (Previously presented) The method of claim 45, wherein the composition is administered as an inhaled gas.
- 126. (Previously presented) The method of claim 125, wherein the gas is administered as a mixture comprising carbon monoxide, nitrogen and oxygen.

۲.

- 127. (Previously presented) The method of claim 126, wherein the concentration of carbon monoxide in the mixture is monitored with a carbon monoxide analyzer.
  - 128. (Previously presented) The method of claim 45, wherein the patient is a human.
- 129. (Previously presented) The method of claim 46, wherein the composition is administered as an inhaled gas.

11. . . . . . .

121.

Applicant: Choi et al.
Serial No.: 10/053,535
Filed: January 15, 2002

Page

: 13 of 19

130. (Previously presented) The method of claim 129, wherein the gas is administered as

a mixture comprising carbon monoxide, nitrogen and oxygen.

131. (Previously presented) The method of claim 130, wherein the concentration of

carbon monoxide in the mixture is monitored with a carbon monoxide analyzer.

132. (Previously presented) The method of claim 46, wherein the patient is a human.

133. (Previously presented) The method of claim 47, wherein the composition is

administered as an inhaled gas.

134. (Previously presented) The method of claim 133, wherein the gas is administered as

a mixture comprising carbon monoxide, nitrogen and oxygen.

135. (Previously presented) The method of claim 134, wherein the concentration of

carbon monoxide in the mixture is monitored with a carbon monoxide analyzer.

136. (Previously presented) The method of claim 47, wherein the patient is a human.

137. (Previously presented) The method of claim 50, wherein the composition is

administered as an inhaled gas.

138. (Previously presented) The method of claim 137, wherein the gas is administered as

a mixture comprising carbon monoxide, nitrogen and oxygen.

139. (Previously presented) The method of claim 138, wherein the concentration of

carbon monoxide in the mixture is monitored with a carbon monoxide analyzer.

Applicant: Choi et al. Serial No.: 10/053,535

Filed: January 15, 2002

Page : 14 of 19

140. (Previously presented) The method of claim 50, wherein the patient is a human.

141. (New) The method of claim 43, wherein the carbon monoxide is gaseous carbon monoxide.

142. (New) The method of claim 44, wherein the carbon monoxide is gaseous carbon monoxide.

143. (New) The method of claim 45, wherein the carbon monoxide is gaseous carbon monoxide.

144. (New) The method of claim 46, wherein the carbon monoxide is gaseous carbon monoxide.

145. (New) The method of claim 50, wherein the carbon monoxide is gaseous carbon monoxide.

146. (New) The method of claim 57, wherein the carbon monoxide is gaseous carbon monoxide.

147. (New) The method of claim 58, wherein the carbon monoxide is gaseous carbon monoxide.

148. (New) The method of claim 62, wherein the carbon monoxide is gaseous carbon monoxide.

149. (New) The method of claim 63, wherein the carbon monoxide is gaseous carbon monoxide.

Attorney's Docket No.: 13681-003002 Applicant: Choi et al.

Serial No.: 10/053,535

Filed : January 15, 2002

Page : 15 of 19

150. (New) The method of claim 65, wherein the carbon monoxide is gaseous carbon monoxide.

- 151. (New) The method of claim 66, wherein the carbon monoxide is gaseous carbon monoxide.
- 152. (New) The method of claim 67, wherein the carbon monoxide is gaseous carbon monoxide.
- 153. (New) The method of claim 68, wherein the carbon monoxide is gaseous carbon monoxide. ....
- 154. (New) The method of claim 69, wherein the carbon monoxide is gaseous carbon monoxide.
- 155. (New) The method of claim 74, wherein the carbon monoxide is gaseous carbon monoxide.
- 156. (New) The method of claim 89, wherein the carbon monoxide is gaseous carbon monoxide.
- 157. (New) The method of claim 96, wherein the carbon monoxide is gaseous carbon monoxide.
- 158. (New) The method of claim 97, wherein the carbon monoxide is gaseous carbon monoxide.